

# RELAY VALVE

**R-12  
VERTICAL**

**CATALOG  
03-B-04C**

The relay valve is primarily used on long wheel base vehicles to apply and release rear axle(s) service or parking brakes.

It is an air operated, graduating directional control valve of high capacity and fast response. Upon receipt of signal pressure from the service brake valve, the relay valve will graduate, hold and release air pressure from the brake chambers to which it is connected.

The relay valve is used to balance the time of brake applications on heavy duty vehicles. They are especially needed where large volumes of air are required or long service lines cause the capacity of the brake valve to be exceeded.

Relay valves can be remote or reservoir mounted and differ primarily in the design.

The R-12 is piston operated and is offered with either vertical delivery ports which are primarily used on trailers or horizontal delivery ports which are primarily used on truck/tractors.

For service/maintenance information, see Service Data Sheet SD-03-31.

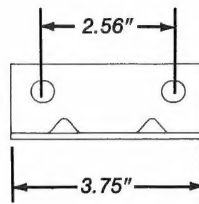
**MAINTENANCE KIT IS PC. NO. 102802**

**WEIGHT - 2.25 LBS.**

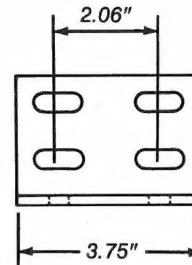
**VMRS. NO. IS 13-010-009.**

**DEVICE CODE IS 1064.**

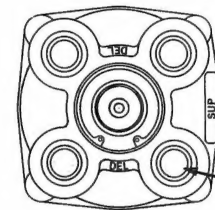
## Mounting Brackets



**PC. NO.  
294314**

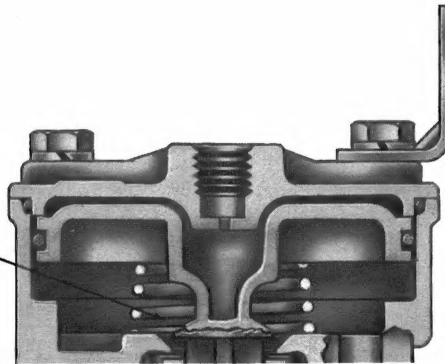


**PC. NO.  
296010  
(UNIVERSAL)**



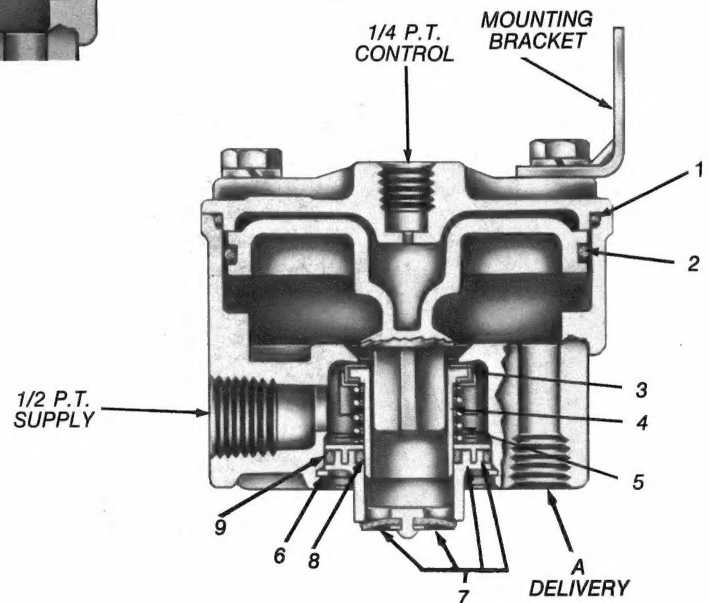
**Bottom View**

DIFFERENTIAL  
SPRING



## Maintenance Kit 102802 consists of:

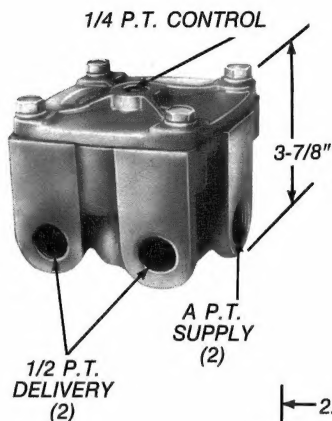
| Key No. | Qty. | Description          |
|---------|------|----------------------|
| 1       | 1    | O-Ring               |
| 2       | 1    | O-Ring               |
| 3       | 1    | Valve Retainer       |
| 4       | 1    | Inlet & Exhaust Vlv. |
| 5       | 1    | Valve Spring         |
| 6       | 1    | Retaining Ring       |
| 7       | 1    | Exh. Cover Complete  |
| 8       | 1    | O-Ring               |
| 9       | 1    | O-Ring               |



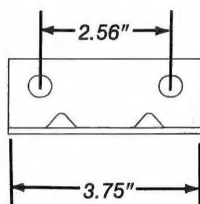
| R-12 Vertical Service Replacement Pc. No. | Crack Pressure (P.S.I.) | A Delivery Port Size (P.T.) | Mounting Bracket Pc. No. | Differential Spring Pc. No. |
|---|-------------------------|-----------------------------|--------------------------|-----------------------------|
| 102626                                    | 4                       | 1/2                         | 296010                   | —                           |
| 103912                                    | 7.5                     | 1/2                         | 296010                   | 297991                      |
| 104561                                    | 5.5                     | 3/8                         | 296010                   | 296340                      |
| 065104                                    | 4                       | 3/8                         | 296010                   | —                           |

Reducer bushings may be required to facilitate changeover. See page 07-A-4 for piece numbers.

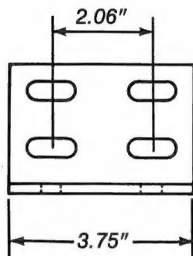
**CRACK PRESSURE IS THE AMOUNT OF CONTROL PRESSURE REQUIRED BY THE VALVE TO INITIATE AIR DELIVERY.**



Mounting Brackets



PC. NO.  
294314



PC. NO.  
296010  
(UNIVERSAL)

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For service/maintenance information, see Service Data Sheet SD-03-31.

MAINTENANCE KIT IS PC. NO. 102802

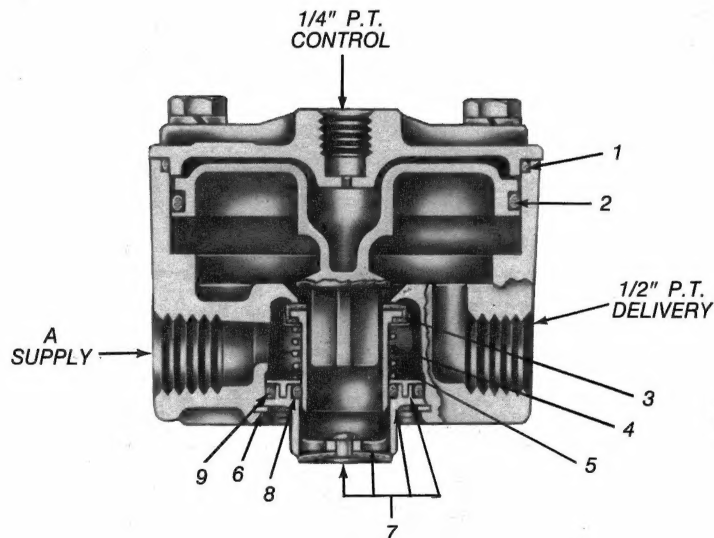
WEIGHT - 2.25 LBS.

VMRS. NO. IS 13-010-009.

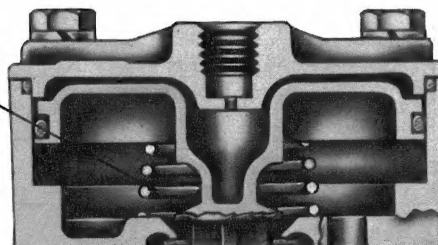
DEVICE CODE IS 1064.

Maintenance Kit 102802 consists of:

| Key No. | Qty. | Description            |
|---------|------|------------------------|
| 1       | 1    | O-Ring                 |
| 2       | 1    | O-Ring                 |
| 3       | 1    | Valve Retainer         |
| 4       | 1    | Inlet & Exhaust Valve  |
| 5       | 1    | Valve Spring           |
| 6       | 1    | Retaining Ring         |
| 7       | 1    | Exhaust Cover Complete |
| 8       | 1    | O-Ring                 |
| 9       | 1    | O-Ring                 |



DIFFERENTIAL  
SPRING



| R-12 Horizontal Service Replacement Pc. No. | Crack Pressure (P.S.I.) | A Supply Port Size (P.T.) | Mounting Bracket Piece No. | Differential Spring Pc. No. |
|---|-------------------------|---------------------------|----------------------------|-----------------------------|
| 103009                                      | 4                       | 3/4                       | 296010                     | —                           |
| 104165                                      | 7.5                     | 3/4                       | 296010                     | 297991                      |
| 103195                                      | 10                      | 3/4                       | 296010                     | 294873                      |
| 065125                                      | 5.5                     | 1/2                       | 296010                     | 296340                      |

Reducer bushings may be required to facilitate changeover. See page 07-A-4 for piece numbers.

**CRACK PRESSURE IS THE AMOUNT OF CONTROL PRESSURE REQUIRED BY THE VALVE TO INITIATE AIR DELIVERY.**